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ABSTRACT

If students are first taught writing as experience, then become aware of the intellectual and imaginative operations they use to shape that experience, they will be better able to manage the thinking and writing tasks of the various academic disciplines and of the world of work. This is the purpose of a proposed upper-level writing course that would help students identify the thinking skills required by a variety of subject areas and to apply these skills to their personal lives. The course will assist students in examining the ways they respond to the world and form attitudes, and then lead them to examine the influence of that perspective on their observations. Next, the course will show students how to apply the scientific method to their own beliefs. Finally, the students would learn to identify and analyze the values that underlie their choices. By thinking and writing throughout the course, students will move from the self outward, from personal, through academic, to purposeful tasks so that they can better understand the appropriate language of each. (Course materials are appended.) (FL)

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Perception and Evaluation:
Writing to Develop Thinking Skills

Judith M. Kirscht

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In addition to the wealth of material and guidance provided by the faculty, the following fellow participants have been invaluable, both in the conception and execution of the course and presentation: my fellow Michigan team members, Jeffrey Evans and Jean Long in working through values and ethics thinking, logic materials, and course conception, Jeffrey for his further work with me on biographical materials, Jean for advice on the draft of this paper, and both for general moral support; members of the small group on values - Jeffrey and Jean, Marilyn Jahn, Helen Thorpe, Teresa Castaldi, Judith Riner, Barbara Mallonnee, Daniel Dombroski, John Dick and Irving Brown (who also provided sociological source materials), Jack Breihan, and Donna Reirdon.

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Introduction

Two of the beliefs that have brought the participants to this Institute, it seems to me, are first, that good writing and good thinking are closely related, and second, that students ought to be involved in both. Further, we seem agreed that thinking in any field is a messy, tangled business, but that writing during the evolution of ideas is invaluable. Not only does it result in a deeper understanding of the writing process, it also distances the author from his or her thoughts, a necessary step in the development of the analytic skills required by the disciplines. I think we also hope that by involving our students in the writing process, we will somehow involve them more closely in their academic work, will transform our passive receivers of knowledge into active critical thinkers, and that the obstinant gap between school and life will vanish. But if the latter is true, we are asking for distancing and involvement simultaneously, and it is little wonder if we are disappointed. I suggest that what we in fact want is motion, an interaction between the personal and academic poles, and I think that to achieve this, students must understand the relationship between the two far better than they do now.

The upper-level writing course described below is based on the conviction that if students are first taught writing as an expression of experience, and then made aware of the ways their own brains transform that experience, the imaginative and

intellectual activities will not appear such strangers when they encounter them in the academic world of the disciplines. The eighteen year old who engages in sophisticated analytical strategies when calculating the best time and place to ask for the car, would probably not recognize this activity under the name of 'audience analysis'. Such recognition would require, I think, the same sort of distancing as the psychology assignment that asks him to discuss it in terms of the family power struggle. By identifying the thinking tasks required by psychology (and other fields) and asking the students to apply them to their personal lives, I hope to create a continuum between the two.

The success of the above in closing the gap depends on creating a smooth transition between personal and academic thinking and on keeping an active relationship between abstract theory and observable life. Toward this end, I hope to develop, in the course of next year, a body of first person literature (autobiography, biography, short fiction) that will facilitate this shift. This type of literature has been chosen because it communicates in a very immediate, personal way, yet is given shape by its authors. It provides movement from direct to indirect experience early in the course and can later be used as 'data' for the application of theories.

The goal of the course, then, is to involve students in a variety of thinking and writing tasks that move them from the personal outward, and that translates the personal 'knowing' into the complex, formal thinking modes of the academic disciplines.

The Course

Section I: The Responder

The purpose of the first section of the course is to make students aware of the complex ways they structure and respond to their worlds and of the role of language in that process. They write daily journals on significant persons, places, events, and activities in their lives, both to develop a natural style and to provide material for later examination. Macrorie, Elbow, Progoff, and others have demonstrated the value of journals for fluency, as calesthenics for writing muscles, and my own students consistently report that the daily writing I impose is, second only to conferences, the most important factor in their writing development. Not only is such writing valuable for discussion of expressive prose -- affect, imagery, precision, voice, etc.-- but it allows students to discover the way experience has shaped and reshaped their perspective, influenced their choice of words, and given meaning to such concepts as grades, marriage, sex, and work. They examine each others work as well as the published first person accounts of others, move from direct to indirect experience, and, using Hayakawa's exercises on fact, inference, and judgment (Hayakawa,1978,pp.32-44), along with inference exercises from Maimon et al (1981,pp49-53), they watch the interplay of reason, imagination and emotion. Finally, they return to their own work to see if they can discover the sources of their own attitudes and biases, find the set of expectations which function as their personal 'theory' of human behavior.

Below is a sample of student journal writing from this stage:

> My narrow method of defining 'friend' is not inherently good; there is the tendency to 'count' the number of friends. I would rather remain aware that friendship should be like a 'sliding scale' -- it is not necessary to conclude whether or not someone constitutes a friend. I would still, however, insist that the conscious process of determining reliability cannot by ignored.

You will notice that the style if very formal for journal writing, and this is common. Many students have no informal style; they have written for performance only, and to use paper as so much grist, to be ground and reground in the thinking process, is both strange and somewhat dismaying. The sample does, however, show the sort of thinking I hope for from this exercise. The student is looking back at a narrative account of the betrayal by a friend that shaped his early definition of friendship; here you see him pulling away from that definition and struggling to reevaluate it. The prose is not lucid; it reflects the incoherence of an emerging position, and it is vital, at this point, to stress to students that this is what thinking-writing should look like, that this sort of incoherence is a viable and important step in the development of both the writing and thinking process.

Many of my students' reaction to the above exercise is that they are de-structing rather than con-structing, as indeed they are, so the final task of this section is to reverse that process, to construct, using the topoi of the neo-classicists (Corbett,1971,pp107-155), a Self-Definition, drawing the themes from their journals. This becomes their

'theory of human behavior' which they will amend periodically throughout the course. Their last act before they move on is to convert this information into a job resume, shifting their prose style and tone according to their new audience. This movement, from data and thinking-writing, to abstraction and structured formal writing (later to become academic writing) to purposeful writing is the stretching exercise that continues throughout, and that I hope will move students into a more comfortable relationship to both writing and thinking. The journal writing, begun intensely here, will now, using Kinneavy's approach, be incorporated into the process at all stages. I am indebted to the Institute, particularly to Professor Belcher's seminar, for many useful ideas along this line.

Section II: The Observer

Using the awareness gained in Section I, the students now become observers in order to separate more precisely the various ways in which they 'know' their worlds. They first examine professional models from the personal/affective, aesthetic, and scientific arenas, discuss the purposes of each, the value, and finally the language -- expressive, aesthetic, and referential -- that is appropriate to each. The terms, as you will have noticed, are close to Kinneavy's(pp17-40), because at this point I find his the most useful theory for distinguishing types without value loading.

Once they have become familiar with these languages as wielded by professionals, they write three different descriptions, using each of the modes, of a particular

campus building. This exercise, adapted from one suggested by E.Fred Carlisle(p.127), reveals to students how much they differ among themselves, not only in their preferred language, but it the way they see the object itself. They then proceed to a local shopping mall and describe the scene, objectively on one side of their notebooks, expressively on the other, a technique suggested here and also employed in some University of Michigan psychology classes. This time they will compare only the 'objective' descriptions to see whether they can discern any authorial attitudes toward shopping malls, people, etc. Experience indicates that both data selected for recording and prose will still reveal startling, and educational, differences.

Finally, students return to the mall as members of their disciplines; this time they select some aspect of the scene to observe (i.e. body-language for a psychologist, mating behavior for an anthropologist, consumer behavior for an economist) and write another description. These they will examine both for observer effect (still) and for the effect of the disciplinary focus. Hopefully, both the scientific and aesthetic will have their representatives.

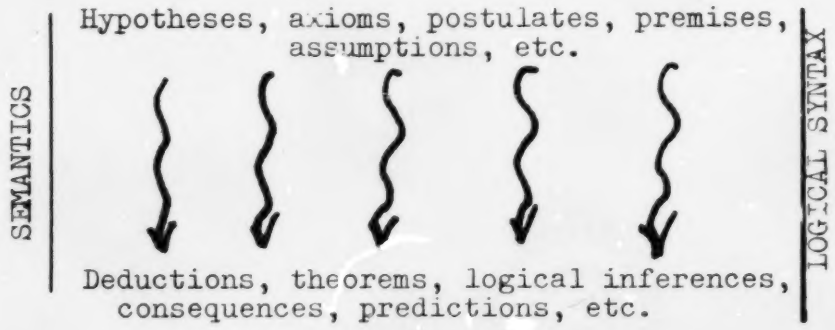
Each of the exercises above have produced a short, informal paper; at the end of the section, they will write two formal pieces: First, an addendum to the self-definitions, evaluating themselves as observers (identifying predelictions for certain data, blind spots, attitudes that distort vision, etc), and second, an explanation of their discipline for freshpersons of undeclared majors. This latter must use the material collected

to illustrate not only the field's focus and interests, but the effects it has on the perceptions of its members. This last assignment shifts students from referential or aesthetic prose into the persuasive mode as well as shifting the audience and purpose of the piece.

Section III: The Investigator

The first two sections of the course have been Self-centered, designed to increase the students' awareness of themselves as perceivers; using these insights and techniques, the stude now move into the more rigorous arena of scientific thinking to examine the interaction of observation, intuition, and deduction in scientific method. They will, however, use their own observations and belief systems as content. The main task of the section is to design and carry out a miniature scientific study, an adaptation of an idea proposed by David Hamilton of Iowa (Hamilton, 1980, pp.112), which I tried last year and modified further here at the Institute, with the help of Professor O'Connor. The students follow a model of the hypothetico-deductive method proposed by Peter Medawar (Medawar, 1968,p.46), a model that proved most successful in that it opened up a new and effective way for students to discover the wealth of assumptions and inferences that underly the most innocent appearing belief. It drew the inductive, intuitive, and deductive processes into an active relationship that 'made sense' to the students, again in terms of their personal systems, and, most importantly, presented science not as a system for proving 'truths' but as a process for continuously reshaping hypotheses.

To begin, I select an observation that has been common to many of the reports of the previous section and ask the students for possible explanations of the phenomenon. For example, many students last year had reported children climbing and running on the stage at the shopping mall. Their ready explanations -- "children like heights,""children like open space,""children like to escape from adults,"-- provide the hypotheses for demonstrating the method. A dialectic now begins, as diagrammed by Medawar (p.47) and shown below, between definition and logic.


Hypotheses, axioms, postulates, premises, assumptions, etc.
SEMANTICS
LOGICAL SYNTAX
Deductions, theorems, logical inferences, consequences, predictions, etc.

Using the sample hypotheses then, they must first define what they mean by 'child.' Once they had agreed that they meant a child under eight years old, they had to discover the assumptions about and experience with human behavior that led them to believe that children over eight do not jump on stages. The logical, or deductive side produces, as it continues,more terms in need of definition, and so the dialectic proceeds, until they arrive, finally, at a hypothesis that is precise, well thought through, logically sound, and predictive

and predictive enough to be testable.

I have found that students can bring to the semantic half of the job the skills developed in the first half of the course, but that the logical syntax need more explanation than the Medawar model provides. To break this down more thoroughly for students, I plan to use the Toulmin system of warrants, backings, claims, and grounds that we worked through here at the Institute (Toulmin,1979,pp.21-101). Appendix A gives a model of the 'children and stages'dialogue,organized along Toulmin lines.

The students next choose their own hypotheses, work through the model, then work in teams to set up study designs. These studies are indeed 'mini', confined to tests where data can be collected in two or three hours; it is the method, not the results that concern us here. The project design sheets provided (Appendix B) are designed to help students continue the Medawar inquiry through every aspect of their study, from sample selection, through measurement, to predicting extraneous elements that will affect their results, so that the thinking work is done and cross-examined before they set out.

While they are busy collecting data outside of class, class time will be devoted to translating the sections of their project design sheets into journal article format, discussing the purpose, content, and appropriate prose of each section. Time will also be spent, at this point, on techniques for leading technical information into sentences. If last year's experience is any guide, many of the reports will still be

in essay (persuasive) rather than report (referential) style. To prevent this, I will have students write introductions in both styles and compare them, but it is interesting to note that the essays received, though wrong, were superior to a composition teacher's usual fare. Whether it was the exploratory mode of the project, the Medawar dialectic, or the enthusiasm of this particular group of students I don't know, but it does lend weight, I think, to our shared belief in the close relationship between good thinking and good writing, technicalities of mode aside. Appendix C, the introductions to two student papers, will give the reader an idea of the variety of topic, scope and style of last year's projects. There is no doubt that most of these studies are scientifically crude, but the purpose of the exercise, it should be remembered, is that students apply rigorous thinking to their unexamined, unscientific belief systems, in order to bridge the gap between that world and the .

Section IV: Evaluator

The final section of the course combines the insights gained in the first sections and the analytic capacities developed in the last and moves into discussion of the values that underly choice. I am indebted both to my colleagues here at the Institute and to Professor O'Connor for the many discussions that have helped me clarify the ethical issues involved in teaching in this area. Those discussions resulted in a perception of purpose very similar to that proposed by Daniel

Callahan (Callahan & Bok, 1980, pp.64-71), and I will, therefore, use his list as a guide. They are as follows:

1) to stimulate the moral imagination,
2) to promote recognition of ethical issues,
3) to elicit a sense of moral obligation,
4) to develop logical skills of coherence and consistency, so that we may
5) learn to reduce and tolerate areas of ambiguity and disagreement.

The introduction to the section will outline these and my own role as guide rather than model; in addition, the initial session will be devoted to a clear delineation of the values orientation of the course itself, so that my values will be visible, and clearly open for discussion.

The sequencing of assignments within the section will again move the students from the personal outward, this time following Kohlberg's stages of moral development, as outlined in Likona (Callahan & Bok, pp.103-132), and Toulmin's progression of reasoning stages as outlined in Reason in Ethics (Toulmin, 1950,pp.67-163). Kohlberg stresses the developmental shift in responsibility from external authority to self, a progression that seems harmonious with Toulmin's shift from reasoning about conflicts within a set of norms to evaluating the norms themselves. The sequence, then, first presents students with a personal dilemma, viewed as a personal decision, then to the work situation, where community norms are involved, and finally, to the examination of the norms themselves, in this

case, from the viewpoints of the disciplines.

In each section, students work in peer groups, the collaborative learning groups demonstrated here by Kenneth Bruffee, and each group is given the responsibility of developing climate and procedures that enable all members to participate and get the job done in the allotted time. Each group will appoint a recorder whose job it is to record opinions, consensus, and dissent, and report out to other groups. These procedures, recommended here by Bruffee, also closely resemble those recommended by Likona (Callahan & Bok, pp. 110-111) for development of group responsibility and student involvement. I will, however, give more procedural instruction that Bruffee recommends, because I feel it my responsibility as the teacher to pass on all available logical and ethical tools that have proved useful in conflict resolution. Also, if groups exacerbate conflict rather than approaching resolution, I will intervene to help them discover what has happened.

The task of the groups is to answer, for each of the dilemmas, the following questions outlined by William May for the teaching of professional ethics (Callahan & Bok, pp.212-219):

1) What is going on?

(They will identify, in Toulmin's terms, the claims, warrants, backing, and grounds of the issue.)

2) By what criteria should the decision be made?

(What is the appropriate code? Readings in Toulmin will be assigned to aid in this task.)

3) Who should decide?

(They will decide the appropriate location of power and responsibility.)

4) For whose benefit should the decision be?

(They must end with a concrete course of action.)

Though designed for professional ethics courses, these questions appear to raise the essential issues and make most of the distinctions Toulmin makes as he outlines the logic of moral reasoning (Toulmin, 1950,pp.144-163.). With the additional stipulation that all warrants must appeal to a more general principle than the terms, a suggestion made here by Professor O'Connor, students should be forced to move away from personal preferences toward shared values.

After applying the above questions to the course itself that is on the ethics of teaching ethics, they move on to applying them to short stories selected for the central role of group values in their plots. (William Faulkner's "That Evening Sun," Flannery O'Connor's "Everything That Rises Must Converge," or Philip Roth's "Defender of the Faith" are some possible titles for this purpose.) At the end of each session students will react, in their journals, to the group process, evaluate it, and delineate their position, and its warrants, visa vis the group. This procedure will continue throughout the section.

Once the students are familiar with these procedures, they will move on to examine personal dilemmas; these I will select from dilemmas submitted by the students themselves.

Again the groups must report out a consensus, but in addition, each student must write a paper outlining his or her own resolution, identifying the conflict according to Brown and Keeley's table of typical conflicts (below), then giving the warrants and backing for the priority he or she has given.

TYPICAL VALUE CONFLICTS

1. loyalty -- honesty
2. competition -- cooperation
3. freedom of press -- national security
4. equality -- individualism
5. order -- freedom of speech
6. security -- excitement
7. generosity -- material success
8. rationality -- spontaneity
9. tradition -- novelty

Source: Brown & Keeley, 1981, p.59.

Next, the the students will examine a dilemma situated in the working world, where personal, professional, and community norms conflict. Using Bok's topic, "Whistleblowing and Professional Responsibilities " (Callahan & Bok, pp. 277-297), I will construct specific situations appropriate to the disciplines of the students in the class. They will first draw organizational chars that identify the whistleblower's position and responsibilities within the company, then draw similar charts that delineate the company's position in the community, again determining function and responsibility. Finally, they must identify the ethical code appropriate to the organization.

Once this is accomplished, they discuss the elements of dissent, loyalty, threat, responsibility, and benefit described in the Bok chapter and reach a consensus on their whistleblower's proper course of action. Again recorders report their group's

position, paying particular attention, this time, to paraphrasing the various points of view within the group. The informal writing that follows this session will ask both for the students' positions and an evaluation of the paraphrase of their own position. They conclude with a statement of the responsibilities of a paraphraser, trusting that a personal encounter with this art will lead to a rapid appreciation of its fine points.

To give students a wider perspective on the dilemma just described, they will be given, in the next session, the role of one of the participants in the situation (i.e. that of whistleblower, supervisor of same, company president, public relations director, reporter for the public press, etc.) along with a description of the powers of each. They must now examine the ways in which their new perspective alters their earlier judgments. In addition, they will write, at the end of the session, a description of the ways the new structure altered the group process.

At the end of this session, students must write two reports, still in the role assigned: first to an audience, such as their professional organizations, that ask for the personal bases for their decisions, and another for the public, a group outside the organization, that gives the decision, along with the appropriate warrant, backing,and grounds. Thus, each must adapt the argument to two audiences, two purposes, two language styles, though clearly the soundness of the logic and the accuracy of the paraphrasing are central to both.

The final stage of the Evaluation section will view the dilemmas as events, or 'data', to be viewed and evaluated from the point of view of the disciplines represented. Students will use the conventions of their disciplines as warrants, according to Toulmin's system (Toulmin, 1980, pp.193-309). The economist, for example, might weigh the whistleblower's act in terms of its economic cost to society versus the internal integrity of the company, while the psychology student will delve more deeply into the motivations of the whistleblower himself (or herself). The group sessions during this final stage will pull together the skills developed earlier in the course. Using skills from the first section (the Responder), students will define their disciplines' 'reality' for the rest of the group. What cues does it look for? What are it's interests? What is it's function and purpose in the community at-large? What are its assumptions about the nature of man, society, or truth? Further, what are its areas of judgment, its criteria for evidence, its ethical standards, and how are these preserved? Such discussion should lead to evaluation of the discipline norms themselves and a livelier perception of the place of each in the larger scheme of things.

Using the above definition, which will require some library research, students interpret the situation according to one of the major theories of their field. The situation itself now becomes a vehicle for explaining the field. These two working papers function as rough drafts for the final paper, an article for a general professional audience publication

(American Scholar, Daedalus, etc.) on the role of their discipline in society. This paper will require that they take the perspective of their audience, look at the norms of their discipline from that perspective, and, in short, perform at a fairly high level of moral reasoning, according to both Kohlberg's and Toulmin's standards.

Those who participated in the Rhetoric seminar here at the Institute will have recognized Young, Becker, and Pike's particle, wave, and field progression in this last series, a progression that first looks at an issue in terms of itself alone, then as an dynamic in a state of flux, then as one of a group of similar elements (Young,Becker,&Pike, 1970,p,127). This particular heuristic was chosen because I think its strength lies in its view of truth as a matter of perspective, and its ability to shift the writer's view of the subject.

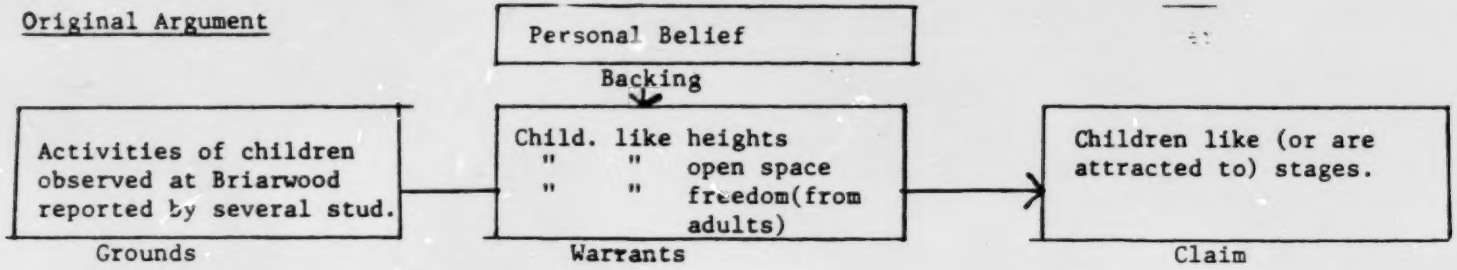
Conclusion

Clearly this is still a course in formation and much in need of classroom experience. Many of its assumptions are indeed unknowns for which evaluators outside my discipline and the students themselves must provide the answers. Is it true that the academic thinking activities also take place in everyday life? Can personal analytic and evaluative strategies be broadened and translated in this way? Will the students produce better writing because they better understand the complexities of their own thought processes? And are these the analytic activities required by the disciplines? The answers, as they come, will transform the course, just as

the invaluable contact with historians, sociologists, psychologists, and philosophers here at the Institute have shaped its development thus far. My hope is that even though it does not address the technicalities and idiosyncratic conventions of discipline-specific writing, it gives students sufficient acuity, flexibility and versatility in language and thought to incorporate these without difficulty.

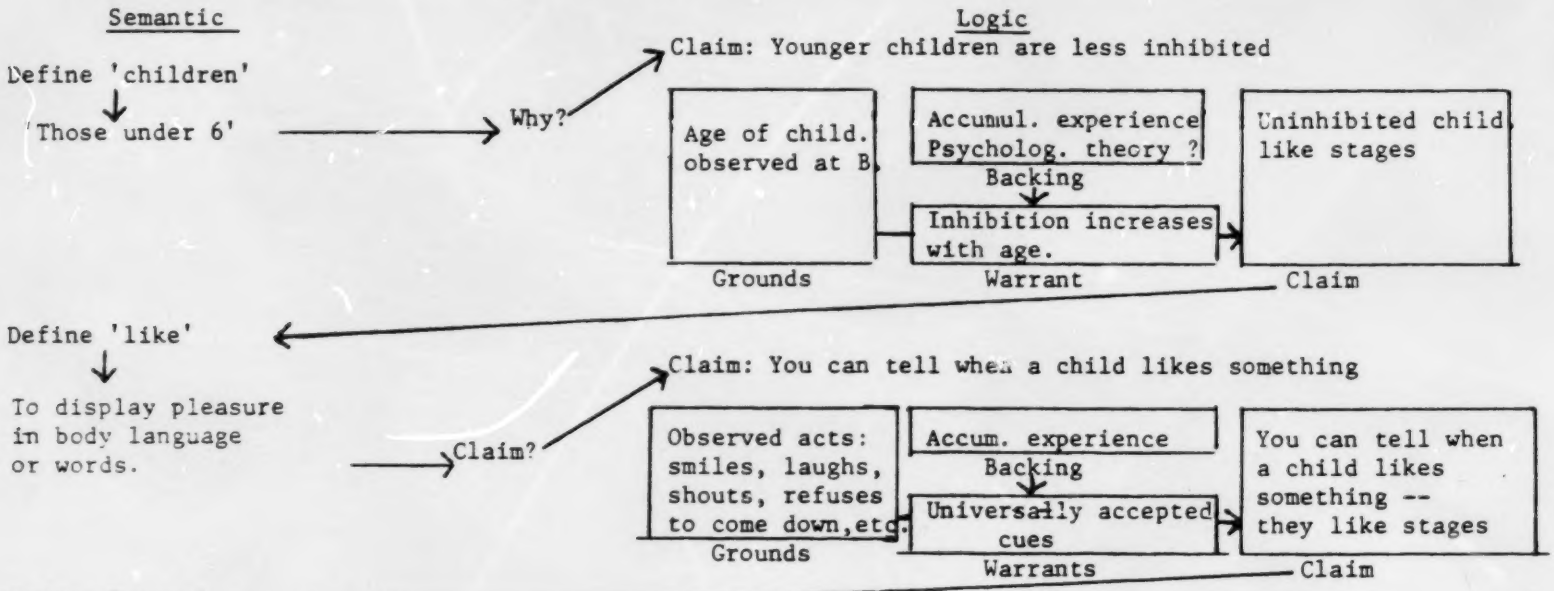
Hypothe[illegible]-Deductive Model Using Toulmin Logic ~~thetico-~~

Original Argument



Dissection (Medawar model)

Hypothesis: Children are attracted to (like) stages.


Semantic
Logic
Define 'children'
'Those under 6'
Why?
Claim: Younger children are less inhibited
Age of child. observed at B
Accumul. experience Psycholog. theory ?
Backing
Inhibition increases with age.
Uninhibited child like stages
Grounds
Warrant
Claim
Define 'like'
To display pleasure in body language or words.
Claim?
Claim: You can tell when a child likes something
Observed acts: smiles, laughs, shouts, refuses to come down, etc.
Accum. experience
Backing
Universally accepted cues
You can tell when a child likes something -- they like stages
Grounds
Warrants
Claim
Define 'stage'
'a space' → 'an open space' → 'an empty space' (empty of adults) → 'a platform' → etc. → 'a raised platform used for performing before a live audience'
What element liked?
Claim: Children like stages because they like heights.
Claim: Children like stages because they like open spaces.
Claim: " " " " " " to perform
Claim: " " " " " " are empty (Of adults)

The resulting claims become hypotheses for 'mini' study designs. By cross-examining each other, students go through the above process for their chosen claim, using Toulmin worksheets attached

'Mini" Report

Project Design Worksheet

I. Hypotheses

a) State your hypothesis as a question

b) What do you expect the answer to be?

c) Are there other possible explanations for the phenomena?

d) State these as alternative hypotheses

II. The Argument

a) Define each term in your hypotheses.

Term: Class:

Differentiae:

Term: Class:

Differentiae:

Tester: Examine the above for ambiguities.

Term: Class:

Differentiae:

b) Attach a Toulmin worksheet giving the logic of your argument, i.e. the basis for saying that specific grounds will support your claim. Work backward to your grounds --indicate clearly the observations you expect.

c) Backing: What discipline, and what area within that discipline would provide theory and research on your question?

Tester: Help designer narrow and identify type of study to look for.

NB: You need not actually look up these studies, but must identify them by type and field.

III. Materials/Population/Sample

a) Describe the population you plan to study as precisely as possible.

b) Are its limits described carefully in the hypothesis?

c) Purity: Can you sort out only those you wish to study?

d) Tester: think up other elements that might get mixed in.

e) Investigator: think up ways to control or deal with item d.

f) Is it representative?

Tester: Identify all possible subgroups included in the definition of the population. Are they included in the study population?

Which are excluded or may be excluded?

Investigator: redefine terms of the hypothesis in light of the above.

IV: Procedures : The validity of your inferences (conclusions) depend on these.

a) Describe what you intend to do, running through the above worksheet to include procedures for insuring representativeness, controlling variables, etc. (Use separate sheet)

Tester: Can you follow the procedure without getting confused? Clarify as necessary

b) Measurement: Describe the measuring device you intend to use.

1) What is the margin of error? Significant?

Tester: Is the investigator interfering with the population in any way that might influence the results?

List all factors you think might interfere with sample, measurement or investigator.

Investigator: Set up controls for the above if possible.

'Mini' Study Reports
Student Introductions

I With inflation devaluing the dollar everyday, the proper financial decisions are important in our present economic environment. As budget-minded students, we should be especially careful to spend and save our money wisely. The problem is what is the best way to do so. Leaving alone personal spending, this report will attemp to answer the question of what is the best way for UM students to save or invest money.

II The setting for this study originates from the competitive world of intramural and recreational basketball on the campus of the University of Michigan. With indoor recreational facilities among the 'top two or three in the nation', Michigan students actively gravitate toward the basketball courts and hundreds of 'pick-up' games originate each day. Due to the large number of participants and the 'drop-in' nature of the recreational buildings, many times 'pick-up' teams consist of five randomly selected students who do not know each other -- and more importantly, do not know the respective basketball abilities of each prospective player.

The question is raised -- how can a student pick a potential 'winning' team without ever having seen anybody play? Well, this study may give the 'picker' an edge in creating a potentially powerful team of five by revealing who <u>not</u> to choose -- the players wearing running or jogging shoes.

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